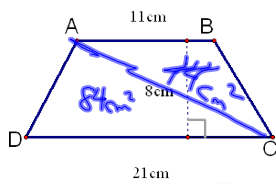


8-6 Area of Trapezoids



$$A = \frac{1}{2}bh$$

$$A = \frac{1}{2} 21 \cdot 8$$

$$A = \frac{1}{2} 11 \cdot 8$$

$$A = 84 + 44$$

$$128 \text{ cm}^2$$

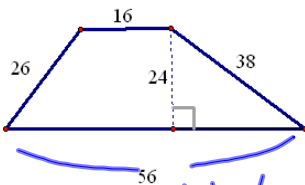
$$\frac{1}{2} 21 \cdot 8 + \frac{1}{2} 11 \cdot 8$$

$$A = \frac{1}{2} 8 (21 + 11)$$

$$\frac{1}{2} 8 \cdot 32$$

$$A = \frac{1}{2} h (b_1 + b_2)$$

TRAPEZOID

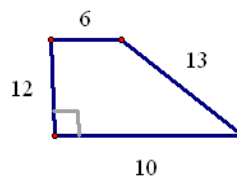


$$A = \frac{1}{2} h (b_1 + b_2)$$

$$= \frac{1}{2} 24 (16 + 56)$$

$$= \frac{1}{2} 24 \cdot 72$$

$$= 864 \text{ cm}^2$$

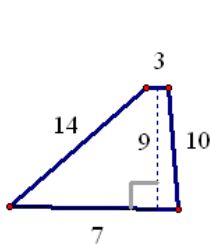


$$A = \frac{1}{2} h (b_1 + b_2)$$

$$\frac{1}{2} 12 (6 + 10)$$

$$\frac{1}{2} 12 \cdot 16$$

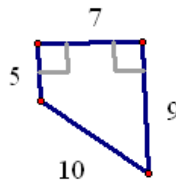
$$= 96 \text{ cm}^2$$



$$A = \frac{1}{2} h (b_1 + b_2)$$

$$\frac{1}{2} 9 (3 + 7)$$

$$A = 45 \text{ u}^2$$



$$A = \frac{1}{2} h (b_1 + b_2)$$

$$\frac{1}{2} 5 (7 + 10)$$

$$\frac{1}{2} 5 17$$

$$A = 42.5 \text{ u}^2$$

$$A = 50 \text{ cm}^2$$

$$b_1 = 7 \text{ cm}$$

$$b_2 = 13 \text{ cm}$$

$$h = 5 \text{ cm}$$

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$50 = \frac{1}{2} h (7 + 13)$$

$$\frac{1}{2} h 20$$

$$50 = 10 \cdot h$$

$$5 = h$$

$$A = 12 \text{ cm}^2$$

$$b_1 = 10 \text{ cm}$$

$$b_2 = 6 \text{ cm}$$

$$h = 1.5 \text{ cm}$$

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$12 = \frac{1}{2} h (10 + 6)$$

$$\frac{1}{2} h 16$$

$$12 = 8h$$

$$1.5 = h$$

$$A = 39 \text{ cm}^2$$

$$b_1 = 8 \text{ cm}$$

$$b_2 = 5 \text{ cm}$$

$$h = 6 \text{ cm}$$

$$A = \frac{1}{2} h (b_1 + b_2)$$

$$39 = \frac{1}{2} 6 (8 + b)$$

$$\frac{39}{3} = \frac{3(8 + b)}{3}$$

$$13 = 8 + b$$

$$5 = b$$

DO:

$$A = 84 \text{ cm}^2$$

$$b_1 = 9 \text{ cm}$$

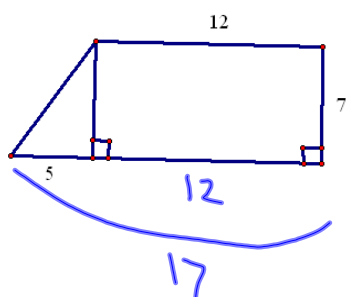
$$b_2 = 15 \text{ cm}$$

$$h = 7 \text{ cm}$$

$$84 = \frac{1}{2} h (9 + 15) \quad 84 = 12h$$

$$= \frac{1}{2} h 24 \rightarrow 7 = h$$

Given the trapezoid, what is the height, base 1 and base 2?



HW

p448-449

1-13, 18-22